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EXAMINER

BOUTAH, ALINA A

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/875,543	<b>Applicant(s)</b> AVIANI ET AL.	
	<b>Examiner</b> ALINA N. BOUTAH	<b>Art Unit</b> 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 45-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This action is in response to Applicant's amendment filed November 19, 2008. Claims 21-44 and 49-50 have been cancelled. Claims 1-20 and 45-48 have been amended. Claims 1-20 and 45-48 are pending in the present application.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 19, 2008 has been entered.

#### ***Information Disclosure Statement***

The listing of references in the specification (i.e. RFC 1631; RFC 2186, HTTP version 1.1, etc.) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 and 45-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Brendel et al. (U.S. Patent Number 5,774,660), hereinafter referred to as Brendel.

Regarding claim 1, Brendel disclosed a method comprising the steps of:

receiving a first request in a data communications device from a client to access data (Figure 6, Figure 11A sign 100; abstract – load balancer receives request from a client);

providing a second request to access data to a data access device in response to receiving the first request, the second request including connection establishment information that enables establishment of a communication connection between the data access device and the client (Figure 6, Figure 11A signs 102, 120),

receiving a first response from the data access device in the data communications device in response to the second request (Figure 6, Figure 11A signs 102, 120); and

providing a data transfer approval to the data access device in response to receiving the first response (figure 8: 120), the data transfer approval authorizing the data access device to establish the communication connection to the client by

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bypassing the data communications device based on the connection establishment information (figure 10: 12) and to provide a second response to the second request to the client by bypassing the data communications device through the communication connection established by the data access device as a result of the data transfer approval (Figure 6, Figure 1A sign 104, column 9, lines 18-26, column 9 lines 52-64; figure 11B).

Regarding claim 2, Brendel disclosed a method where receiving the first request comprises receiving the first request based on a request/response communications protocol (Figure 6, Figure 11A) and receiving a content identifier that identifies a requested content; and providing the second request comprises providing the content identifier to enable the data access device to access the requested content (column 6 Line 63-column 7 Line 13).

Regarding claim 3, Brendel discloses a method where receiving the first request comprises receiving a plurality of first requests from the client to access data; providing the second request comprises providing a plurality of second requests in response to receiving the first requests, the second requests including a request sequence number (Brendel, Figure 6, Figure 11A, column 10 lines 29-37, column 12 lines 7-24); and providing the data transfer approval comprises providing data transfer approvals for the second requests in a sequence based on the request sequence numbers for the second requests (Brendel, Figure 6, Figure 11A, column 10, lines 29-37, column 12 lines 7-24).

Regarding claim 4, Brendel discloses a method where providing the second request comprises providing a plurality of second requests to a plurality of data access devices (Brendel, Figure 6, Figure 11A, column 10 lines 29-37); receiving the first response comprises receiving a plurality of first responses from a subset of the plurality of data access devices that received the second requests (Brendel, Figure 11A, column 12 lines 7-24); and providing the data transfer approval comprises selecting a data access devices from the subset of the plurality of data access devices to provide the second response to the second request and providing the data transfer approval to the data access devices (Brendel, Figure 6, Figure 11A, column 10 lines 29-37).

Regarding claim 5, Brendel disclosed a method wherein the first response includes usage information for each data access device in the subset that indicates a level of usage for each data access device in the subset (Figure 6, column 6 lines 20-33, column 9 lines 30-40); and selecting a data access device from the subset of the plurality of data access devices comprises comparing the usage information for all of the data access devices in the subset to determine the selected one of the data access devices from the subset having a preferable level of usage (column 9 lines 30-40, column 11 lines 51-63).

Regarding claim 6, although Brendel does not explicitly disclose a method where the connection establishment information includes a current transmit window for the

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client that provides a window length for transmitting the second response to the client from the data access device, the window length provided by the client in the first request for use by the data access device when determining a quantity of data to provide in the second response, however, he teaches TCP connections made by exchanging SYN and ACK packets (see figure 10 and its corresponding text). Although not explicitly disclosed, there exists a TCP window which consist of the amount of outstanding (unacknowledged by the recipient) data a sender can send on a particular connection before it gets an acknowledgment back from the receiver that it has gotten some of it. Therefore, one of ordinary skill in the art would have been motivated to employ transmit window in order to control congestion, thus making the network more efficient.

Regarding claim 7, Brendel disclosed a method where the data access device is a first data access device, and the connection establishment information includes a location identifier for a second data access device suitable for use if a requested content specified in the first request is unavailable from the first data access device (Figure 6, column 9 lines 18-40; col. 18, lines 55-67).

Regarding claim 8, Brendel and Ilnicki combined disclose a method where the connection establishment information is a first set of connection establishment information, and the data transfer approval comprises a second set of connection establishment information, the data transfer approval authorizing the data access device to establish the communication connection to the client based on the first set and the

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second set of connection establishment information (Brendel, Figure 6, Figure 11A, column 10 lines 29-37; Ilnicki, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

Regarding claim 9, Brendel disclosed a method, comprising: receiving a first acknowledgment of the second response in the data communications device over the communication connection (Figure 11A); and sending a second acknowledgment from the communications device to the data access device in response to receiving the first acknowledgment indicating that the data communications device received the first acknowledgment from the client (Figure 11A, column 12 lines 59-63).

Regarding claim 10, Brendel disclosed a method comprising: receiving in the communications device a first termination signal from the data access device in order to terminate a request session with the client; and providing a second termination signal to the client in response to receiving the first acknowledgment that indicates a request to terminate the request session (Figures 1 1A-11B, column 12 line 59-column 13 lines 4).

Regarding claims 11-20, the data communication device corresponds directly to the method of claims 1-10, and thus these claims are rejected using the same rationale.

Regarding claim 45. Brendel teaches the data communication device of claim 13, wherein a sequence number for the first requests distinguish the first requests amongst



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each other such that a first one of the first requests has a corresponding assigned unique sequence number with respect to a corresponding assigned sequence number assigned to a first one of the second requests (col. 10, lines 30-34).

Regarding claim 46, Brendel teaches the data communications device of claim 13, where the plurality of second requests are forwarded to the data access device of the subset of the plurality of data access devices in response to a determination, based on receiving the first responses, indicating which of the data access devices are most able to service the first request (figure 10).

Regarding claim 47, Brendel teaches the data communication device of claim 11, wherein the data communication device is a switch and where the approval logic building the data transfer approval results in the data access device establishing the communication connection with the client to service the first request, the communication connection from the data access device to the client bypassing the data communication device; and where the connection establishment information in the second request includes a request for content generated by the client, the data access device receiving the request for content prior to establishing a connection between the data access device and the client based on the connection establishment information Brendel, Figure 6, Figure 1.1A, column 10 lines 29-37, column 20 lines 11-16).

Regarding claim 48, Brendel teaches the data communication device of claim 47, wherein the client generates multiple first requests for corresponding different content, the multiple first requests being forwarded from the client to the data communication device, the data communication device generating respective second requests associated with each of the multiple first requests, the data communication device forwarding the respective second requests to two or more data access devices that are able to establish a respective connection and serve requested data, each of the second requests sent from the data communication device to a respective data access device including a request sequence number distinguishing each of the second requests from each other (Brendel, Figure 6, Figure 1.1A, column 10 lines 29-37, column 20 lines 11-16).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, and 11 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 6, as discussed above, the feature of transmission window is inherent.

Regarding claim 9, as cited above, the load balancer is a pass-thru stage. All ACK packets for the received data at the client passes thru the load balance to the server.

Regarding claim 45, contrary to Applicant's argument, the Examiner cited col. 10, lines 30-34 as the teaching of the claim invention. Not figure 11 as argued.

### ***Conclusion***

It is noted that the column, line, and/or page number citations used in the prior art references as applied by the Examiner to the claimed invention are for the convenience of the Applicant to represent the relevant teachings of the prior art. The prior art references may contain further teachings and/or suggestions that may further distinguish the citations applied to the claims, therefore, the Applicant should consider the entirety of these prior art references during the process of responding to this Office Action. It is further noted that any alternative and non-preferred embodiments as taught and/or suggested within the prior art references also constitute prior art and the prior art references may be relied upon for all the teachings would have reasonably suggested to one of ordinary skill in the art. See MPEP 2123.

The prior art listed in the PT0-892 form included with this Office Action disclose methods, systems, and apparatus similar to those claimed and recited in the specification. The Examiner has cited these references to evidence the level and/or knowledge of one of ordinary skill in the art at the time the invention was made, to provide support for universal facts and the technical reasoning for the rejections made in this Office Action including the Examiner's broadest reasonable interpretation of the claims as required by MPEP 2111 and to evidence the plain meaning of any terms not defined in the specification that are interpreted by the Examiner in accordance with MPEP 2111.01. The Applicant should consider these cited references when preparing a response to this Office Action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALINA N. BOUTAH whose telephone number is (571)272-3908. The examiner can normally be reached on Monday-Thursday (9:00 am - 5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alina N Boutah/  
Examiner, Art Unit 2443